K 146 the diet without materially affecting the amounts and proportions [128] of the protein, fat and minerals.

From this table it appears that the diet of the Kikuyu male is adequate in protein* (see discussion below p. 20), but very low in fat. It contains more than enough phosphorus but is very low in calcium and possibly low in sodium. If it be assumed that the women alternate common irio with their own dish, then their protein and fat are much as those of the men. Their phosphorus intake is also roughly similar, but their intake of calcium and sodium is much higher than that of the men. Their daily intake of calcium is over 1 gm., and must be considered to be about the optimum intake.

M 146 In contrast with this picture, the Masai diet contains a liberal supply of the mineral elements and a large excess of protein and fat, but is low in carbohydrates. It must also be low in cellulose and other indigestible residues.

(*d*) Physical Condition.

K M 128 *Measurements.* In constructing the tables of physical measurements, the data have been arranged in age-groups, up to and including 30 years of age. Actual ages are, of course, not known by the people themselves and, therefore, only an estimate could be made, but the factor of error will be the same with regard to both Kikuyu and Masai. The figures were arrived at as a result of questioning with reference to outstanding events.

The numbers in the different groups are given in Appendix 2 along with the detailed figures. The results are shown in convenient form in the accompanying graphs, in which they are compared with standard English measurements.

K M 141 *Height.*—A comparison of the average heights of Kikuyu and Masai males (Graph 1) of the same age, shows that the Masai grow more rapidly than the Kikuyu and reach a greater mean adult height. At their maximum about the age of 20, there is a difference of almost five inches. At the same age, Masai women (Graph 2) are three inches taller than Kikuyu women. The Masai children M 145 appear to grow more rapidly than English children. This may be 146 due to the fact that their chief article of diet is milk, since it has been shown in experiments with Scottish school children that the feeding of additional milk increases the rate of growth (Orr, 1928; Leighton and Clark, 1929). The total number of Masai children measured is, however, too small to make such deductions reliable.

K M 141 *Weight.*—Graph 3 compares the rate of increase in weight of Kikuyu children from birth to thirty months of age compared with that of English and of American infants. During the first month the Kikuyu infants are about half a pound lighter than English.

* In considering the relative adequacy of Kikuyu and Masai diets it has to be borne in mind that the biological value of the Kikuyu protein is considerably lower than that of the Masai which is derived from meat and milk.

[See Appendix II, Category 116, pp. 77-80--Analyst]

/54 cont./

857 524 together. They build a small hut about a foot high in the customary shape, and, since they themselves cannot get into it, they place a few little stones in the doorway as their children. A pile of the aforementioned Solanum fruits represents their stock of cattle and donkeys, and another one of small stones signifies their herd of goats and sheep. Small pieces of wood represent the calabashes and other household equipment. The boy now drives the livestock to pasture, while his little wife cooks the food. Then he returns /55/ home and the two eat together. Meanwhile they decide that the pasture is no longer good and they must move on. But the Solanum "donkeys" are unable to carry the things, so they quickly tie a bast string to a piece of dry cow dung and thus make a sledge. Then everything is piled on it and the journey starts. In a few minutes the sledge is broken and the game is over. If several boys are together, they like to play war. They divide up into two, three, or four parties of equal strength, and each builds its kraal out of twigs, in which the livestock, as previously described, finds its place. Then the parties make surprise attacks on one another, the one steals the livestock of the other, the latter pursues the victor in order to recover the booty from it, and so on, until a few blows falling too roughly end the game, and it degenerates into a little row. Small boys often go out hunting with sharpened sticks and small bows and arrows for lizards, rats, and similar animals. They are then very proud over a success, and dance, sing, and boast, as they see this done by the warriors when they come back from an expedition. In the last two or three years before circumcision a fight for a piece of meat set out as a reward for the winners represents the favorite game of the boys. Two opposing parties fight over it, armed with sticks.

• 145 Puberty sets in at about the age of 12.

701 /104 cont./
182 a little while, will then lead them farther. Otherwise they leave it
222 the rest.
[825] When the warriors of an ol boror notice that their bones are
701 getting old and the el barnot surpass them in strength, they agree
561 that it is now time to think of marriage. After they have obtained
582 the permission of the speaker and then that of the chief, one after the other leaves the warrior association, each one shortly before his
701 wedding. He announces his retirement by means of a feast, the ol
561 geteñ l ol bãã, that is, ox slaughtering with a tournament. To this
574 all the inhabitants of the nearest kraals are invited and are shown hospitality with the meat of one or several head of cattle. As soon as these are killed, each warrior cuts off a piece of meat for himself and devours it behind a bush standing somewhat apart. Then each of those present receives his share, while the remainder is strung on sticks two meters high. For these the warriors fight with the girls and women in a game in which the latter vigorously swing the sticks, before which the former has more fear than the women, somewhat
[526] accustomed to beatings. Then the younger ones amuse themselves and play, for instance, tag (tosudja). Before there is thought of de-
[539] parture, about five o'clock in the afternoon, a married man and his principal wife go to the host and make the following speech: "adjogi megur' ira ol moráni dada it' ol móruo, iñora ñ gischu inonu, ñ gera inonu, iñora naleñ, tabala 'mbaa el móran, idà tada ol móruo, tabala n dogitin bãgin el móran, ida tada ol móruo"; in translation: I say, you are no longer Ol moráni, but Ol móruo, take care of your cattle and your goats and sheep and watch over them well, leave the occupation of the warriors, now you are ol móruo, refrain from all things of the warriors, now you are ol móruo.

701 After this feast it is up to the warrior whether he takes part more
561 or less regularly in the expeditions of war. As a rule he soon marries
[582] and lives with his wife either in the father's kraal or in the warrior kraal until all his contemporaries are married. Only then are they
[591] considered ol móruo: each one builds his own kraal and removes
• [145] clothing, ornaments, and braid of the warriors. He is now at the end of the twenties, his best strength has been spent. In general the Masai, just like all members of the black race, spend their lives very quickly, they age early, without ever attaining a really advanced age.